



Trenching or Excavation Fatalities

Utah Labor Commission

R. Lee Ellertson, Commissioner

With the arrival of Spring, the trenching and excavation season is again upon us. Almost every year in Utah there are employee fatalities caused by trenching or excavation operations. A recent year recorded six fatalities involving employees in excavation or trenching, three of which were employees less than 21 years of age. The majority of

these deaths occur from March through October. Employers, as well as those involved in the safety and health field are dedicated to identifying the causes of accidents, and to eliminating hazards as quickly as possible to avoid injury - or worse, fatality. Excavation and trenching have always been high hazard activities in Utah. In one year, almost half of the construction fatalities involved trenching or excavation. Soil is extremely unforgiving to a worker when it collapses. Therefore, it is critical that employers provide required safety equipment and employees know how to utilize it.

I have asked Mr. Jay Bagley, Administrator of the Utah Occupational Safety and Health Division to address the hazards of excavation and trenching and to provide employers and employees with information relating to safety while engaged in either process. He suggests the following:

Employers are to ensure worker safety in excavations that are more than five feet deep by making the walls sloped or shored, or trench shields or boxes must be used. Failure to provide some kind of protective system exposes employees to the risk of cave-ins. Too many workers are trapped or killed when management makes the decision to shortcut safety. Employees are also placed at risk of falling back into the trench as they try to exit when an exit ladder at the worksite is not tall enough for employees to exit the top of the trench. Most trenching or excavation contractors are aware of the highly hazardous nature of trench work and know when a particular trench is unsafe. A very few fail to take any action to protect workers whose lives are at risk. Some employers have told me that they “have worked in trenches for years and know when one is going to collapse.”

Unfortunately, not all of their workers have that kind of experience and knowledge about the dangers of trenching. In fact, some of the fatalities in Utah have been to people very qualified, knowledgeable, and experienced in the dangers of trenching and excavation. However, after many, many times of taking the shortcut in the normal trenching and excavation safety rules, the accident happens that is more than just a close call. Safety rules have emerged over the years due to injuries and fatalities and have improved during the last century to provide more protection for employees as they work in this hazardous operation.

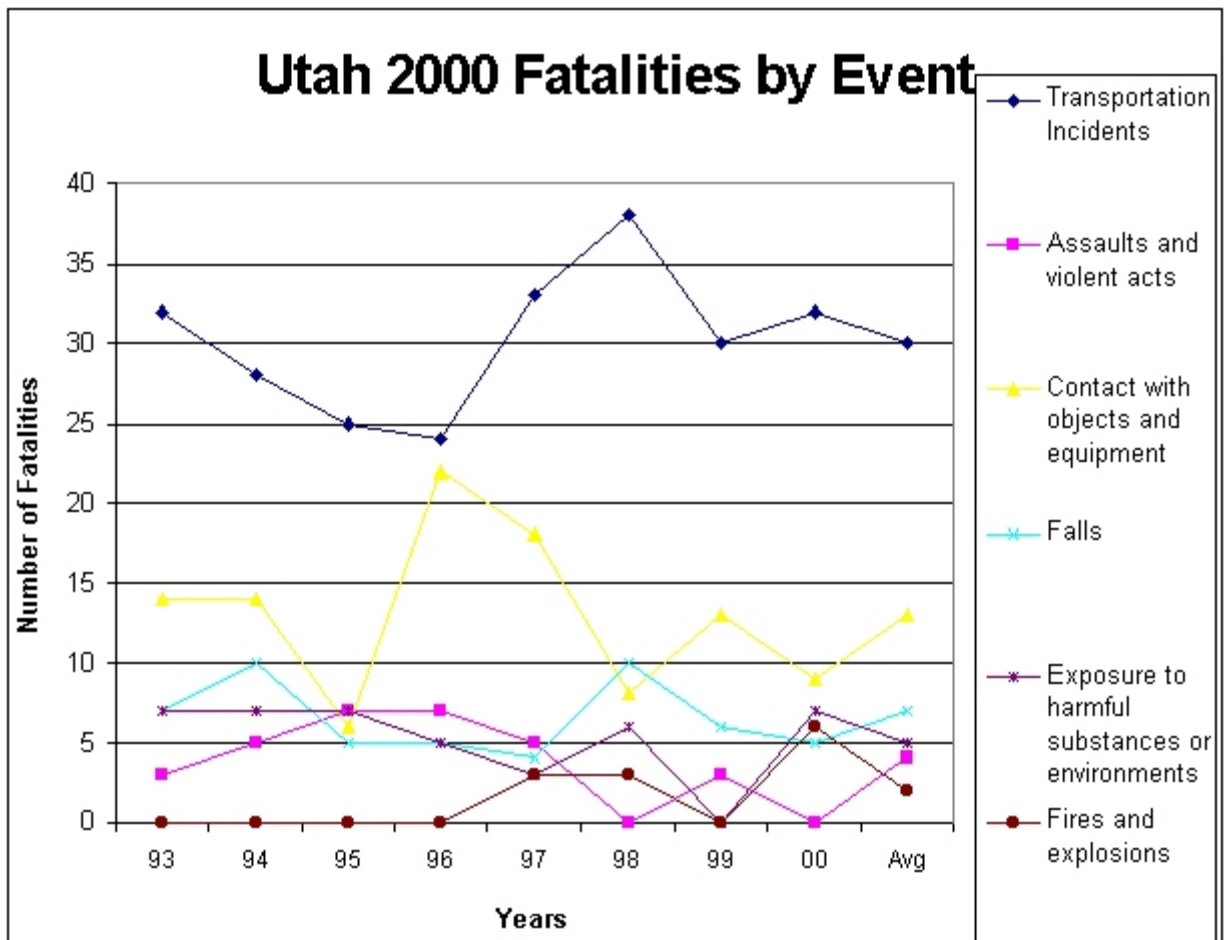
If you have ever had the feeling of material collapsing around you, it is not one that you will ever forget. And when it happens, it is usually too late to get help. When I was a young man, I was helping my father and brother on the family farm when I was partially buried in a trailer we were filling with corn silage. Fortunately for me, my brother was close by and let my father know I was in trouble. I can still recall that horrible, claustrophobic feeling of having the silage surround me, pinning me down and preventing me from being able to breathe in oxygen. I thank God that my brother could hear my faint voice and brought my father to help.

An additional risk to be aware of when trenching or excavating is the danger of contact with utility

lines. Electric, gas, telephone, and others are buried everywhere: in streets, down alleys, under vacant ground, and along property boundaries. When digging anything from a posthole to a major excavation, there is a risk of breaking a utility line. Blue Stakes of Utah is available at no charge to provide essential information concerning utility lines before digging. Blue Stakes also offers Contractor Awareness (Safety) seminars held each year in January in locations such as St. George, Ogden, Provo, West Jordan and Park City. These seminars are free for attendees and cover vital information regarding the safety aspects required during excavation work. The Blue Stakes of Utah website is: <http://www.bluestakes.org/>

Since OSHA was established in the early 1970s, trenching and excavation fatalities have been reduced by 35 percent. The trenching and excavation standards identified by OSHA are the minimum required by law to ensure employees are as safe as possible. Although accidents and fatalities have witnessed a significant reduction in this area of construction, there is still much room for improvement. In one two-year period, UOSH cited excavation and trenching safety standards 264 times during inspections. There are still far too many lives being endangered in Utah when employees are engaged in excavation and/or trenching.

In the chart below, **“contact with objects and equipment”** includes trenching and caught in machinery. Except for transportation incidents, this is historically the area for the highest number of deaths in Utah and excavation and trenching is also one of the most cited UOSH safety and health standards.



Excavation Safety Tip:

Every year, many accidents are caused during trenching and excavation projects. To prevent death or serious injury, daily inspections of excavations, adjacent areas, and protective systems should be made by a competent person for evidence of a situation which could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions.